

Appendix Test Data for RLAN(5.8G) (Conducted Measurement)

Product Name: 1080P Wireless Extender with HUB (TYPE/CM TO
PD+HDMI+2*USB-C3.0+USB-A3.0+ Button)

Trade Mark: N/A

Test Model: HB799

FCC ID: 2BKCK-HB799

Environmental Conditions

Temperature:	24.3℃
Relative Humidity:	51%
ATM Pressure:	100.0 kPa
Test voltage	DC 5V
Test Engineer:	Tony luo
Supervised by:	Max zhang
NOTE	N/A

1. Duty Cycle

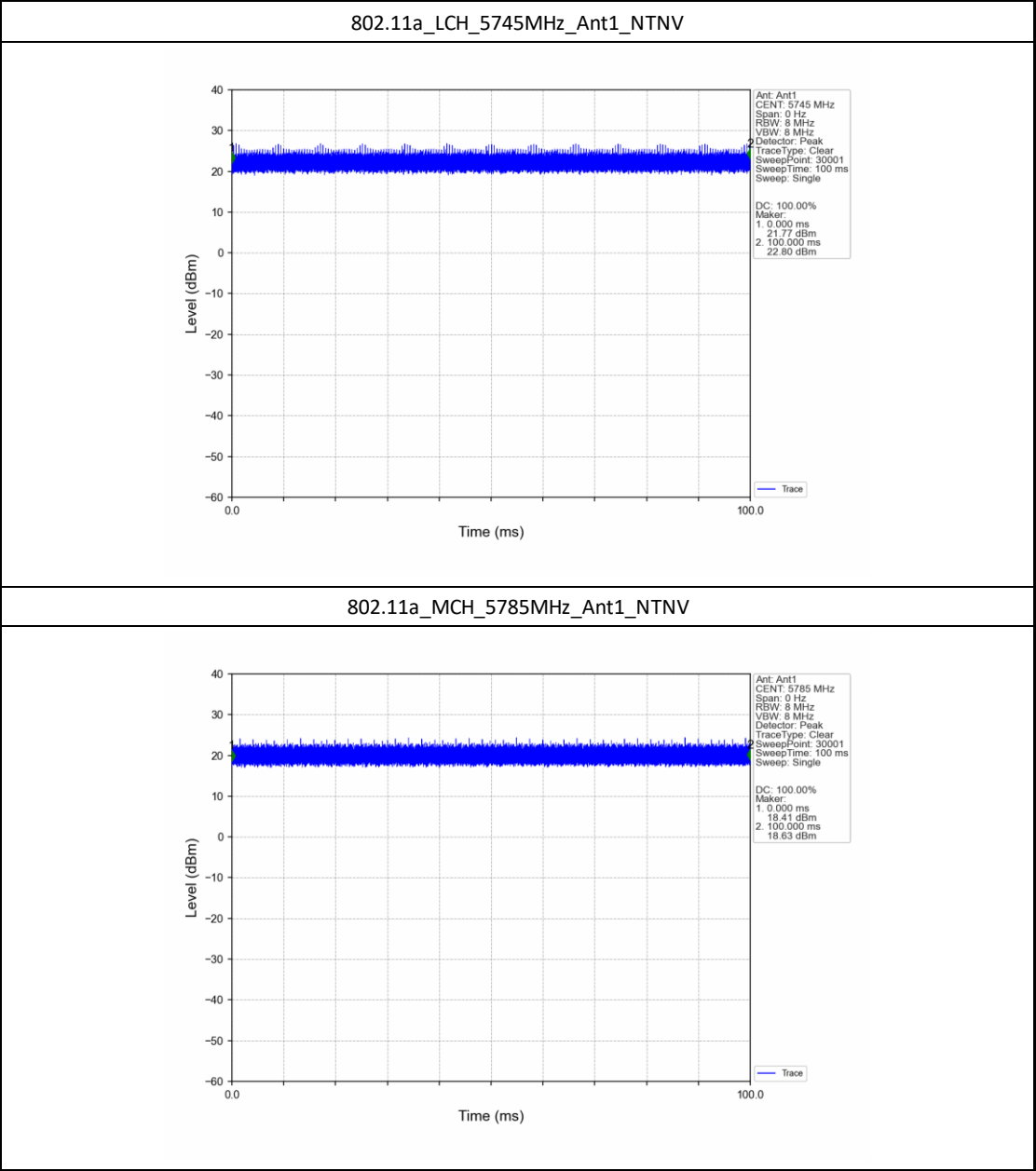
1.1 Test Result

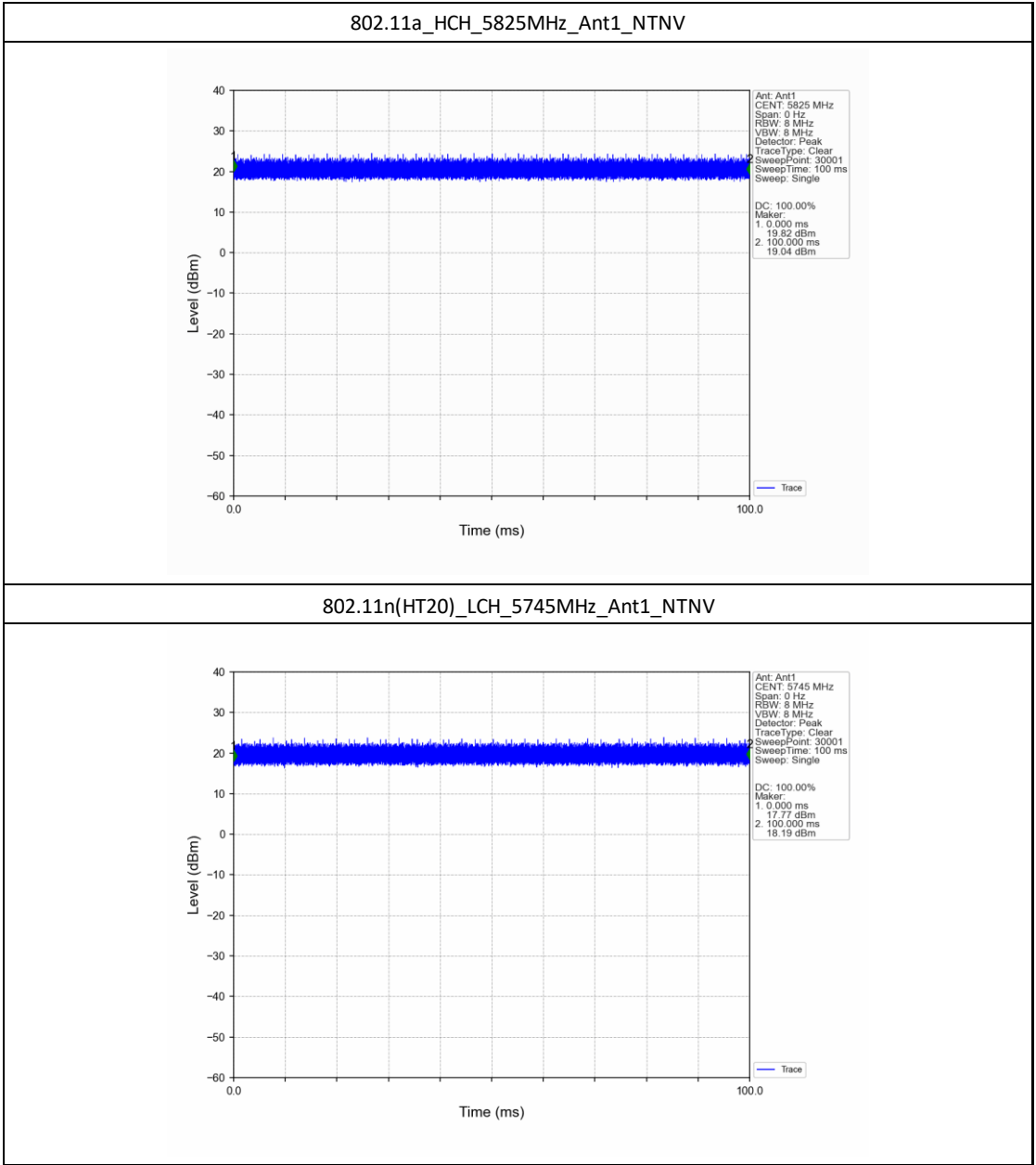
1.1.1 Ant1

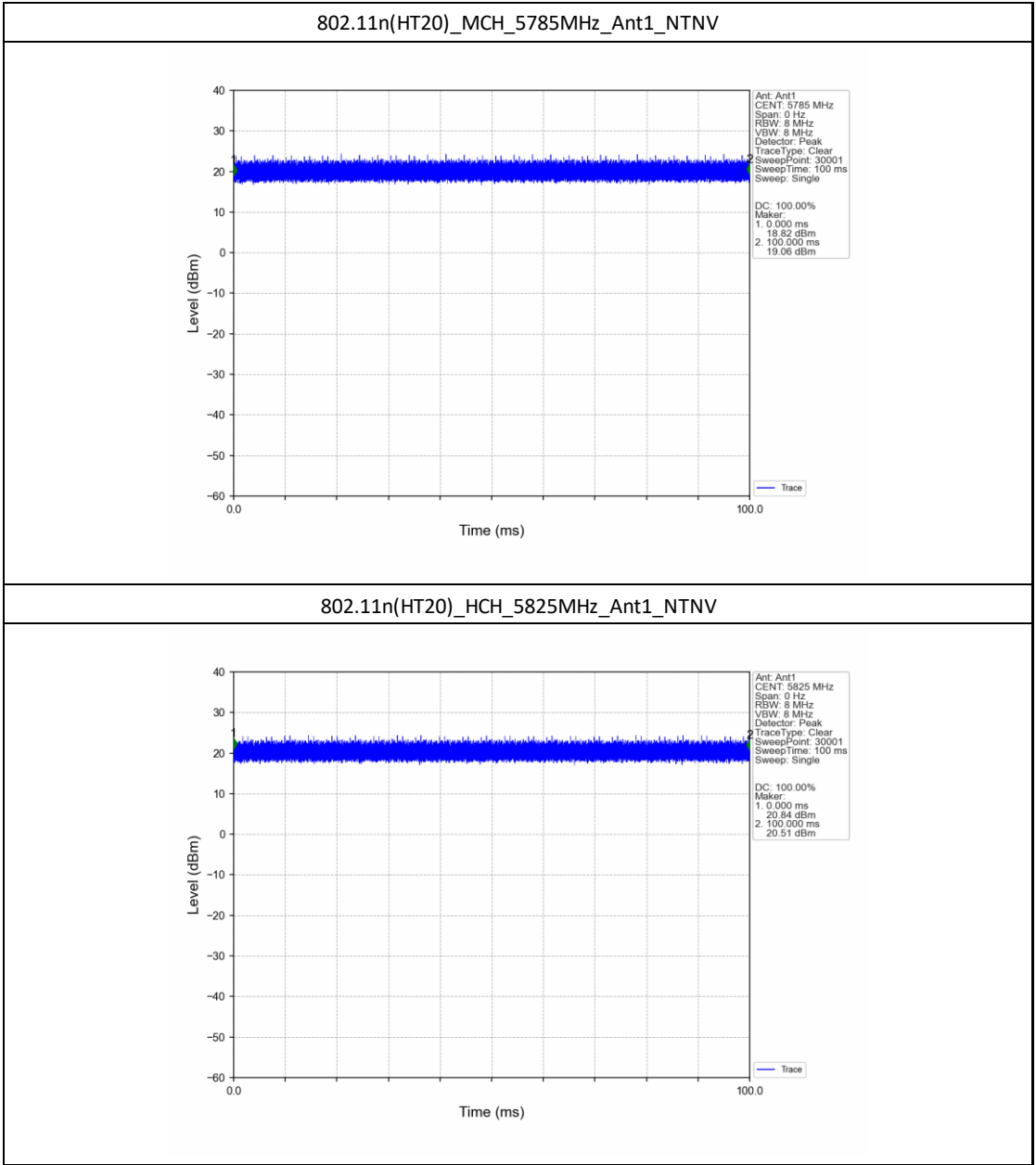
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	100.000	100.000	100.00	0.00	0.00
		5785	100.000	100.000	100.00	0.00	0.00
		5825	100.000	100.000	100.00	0.00	0.00
802.11n (HT20)	SISO	5745	100.000	100.000	100.00	0.00	0.00
		5785	100.000	100.000	100.00	0.00	0.00
		5825	100.000	100.000	100.00	0.00	0.00

1.2 Test Graph

1.2.1 Ant1







2. Bandwidth

2.1 Test Result

2.1.1 OBW

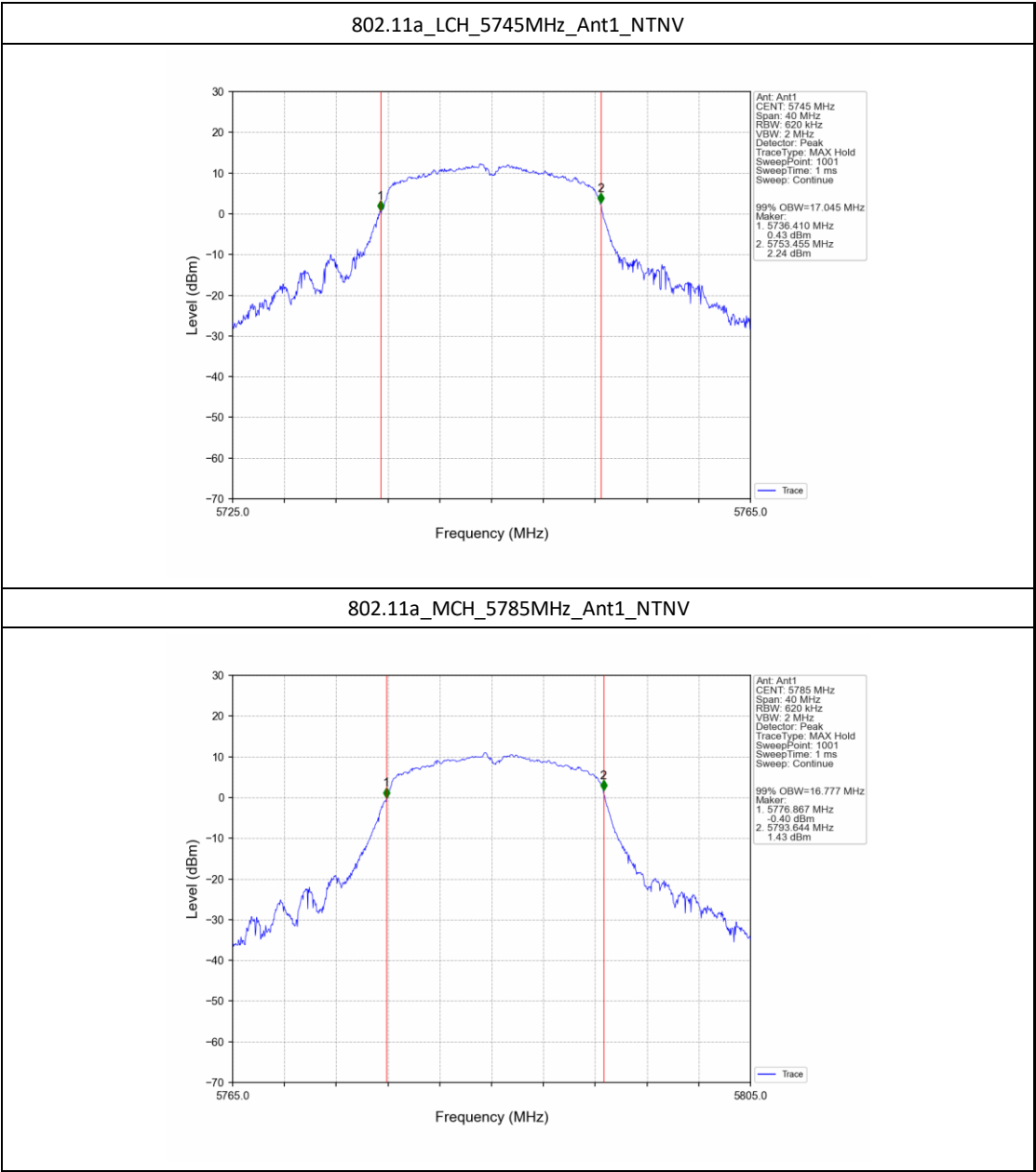
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	17.045	/	Pass
		5785	1	16.777	/	Pass
		5825	1	16.827	/	Pass
802.11n (HT20)	SISO	5745	1	16.842	/	Pass
		5785	1	16.774	/	Pass
		5825	1	16.826	/	Pass

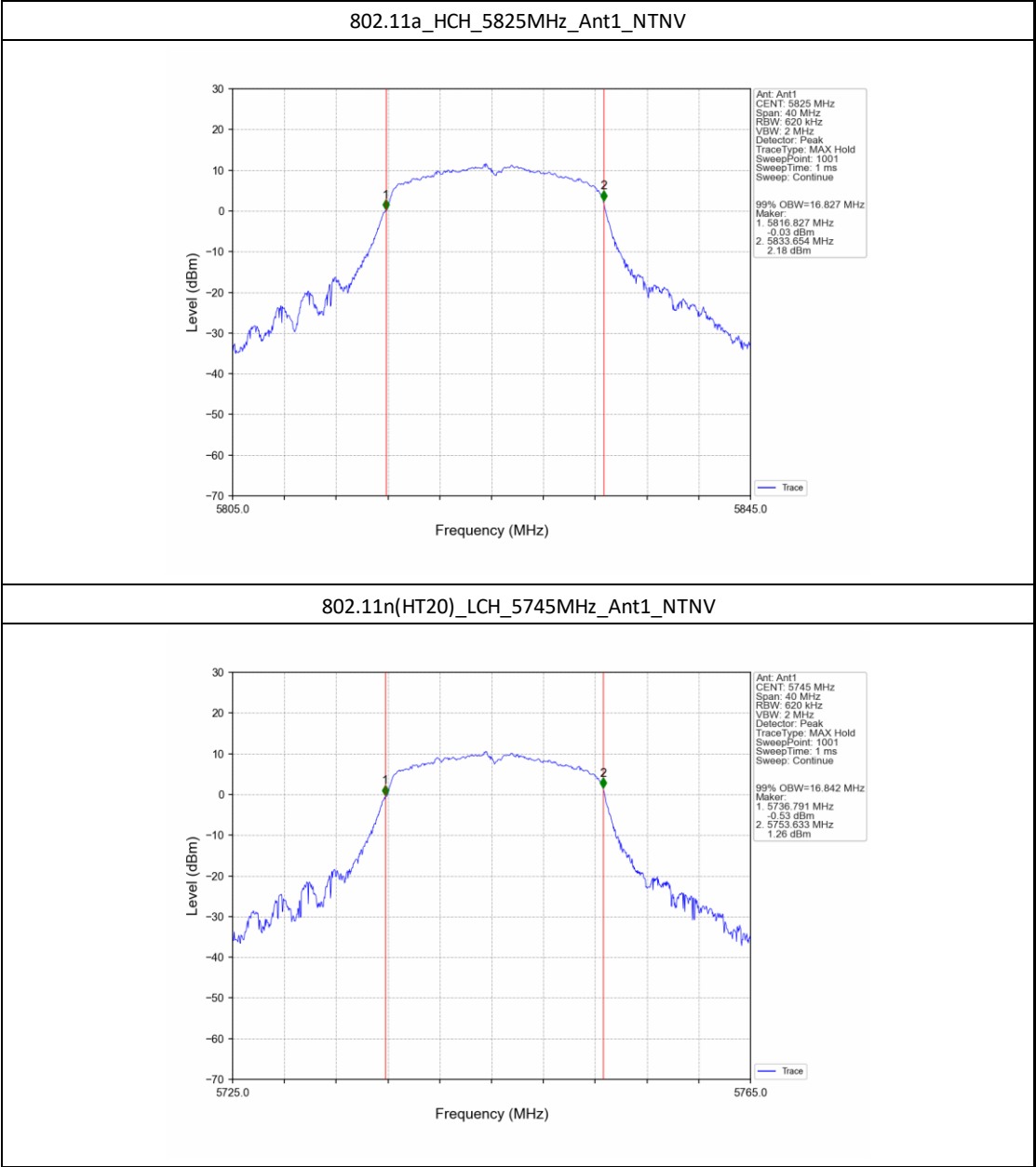
2.1.2 6dB BW

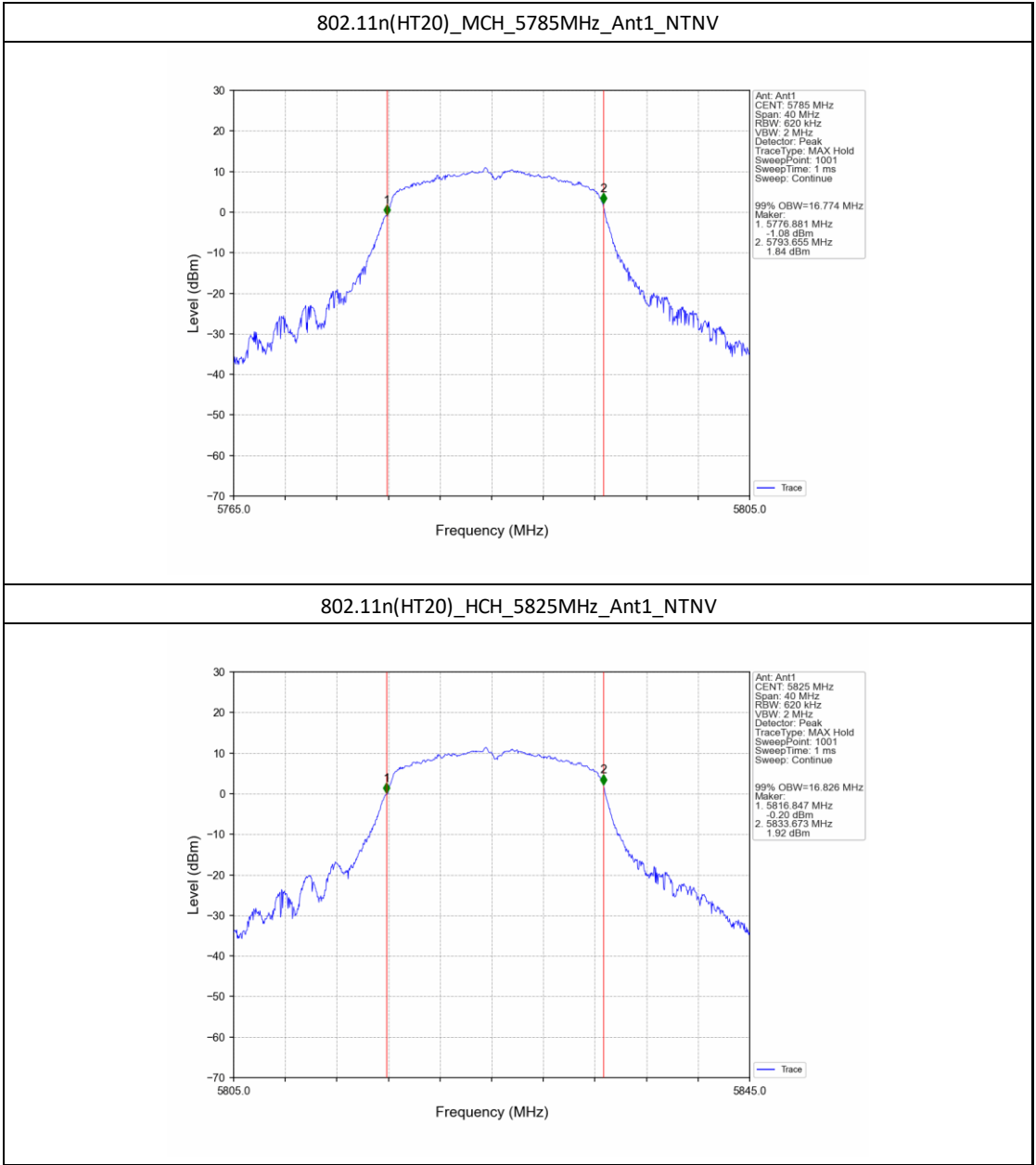
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.100	≥ 0.5	Pass
		5785	1	15.781	≥ 0.5	Pass
		5825	1	15.850	≥ 0.5	Pass
802.11n (HT20)	SISO	5745	1	15.935	≥ 0.5	Pass
		5785	1	15.750	≥ 0.5	Pass
		5825	1	15.849	≥ 0.5	Pass

2.2 Test Graph

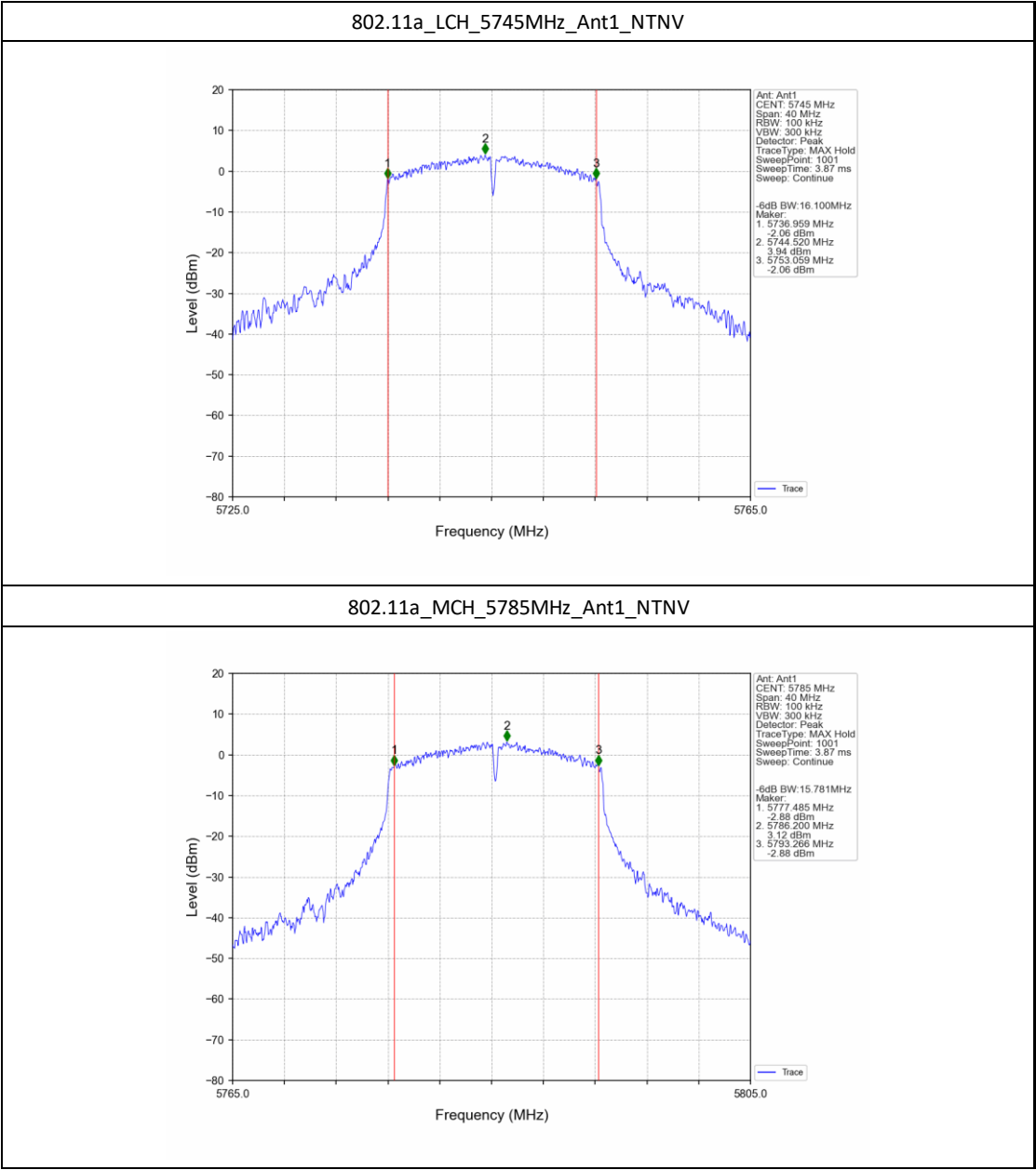
2.2.1 OBW

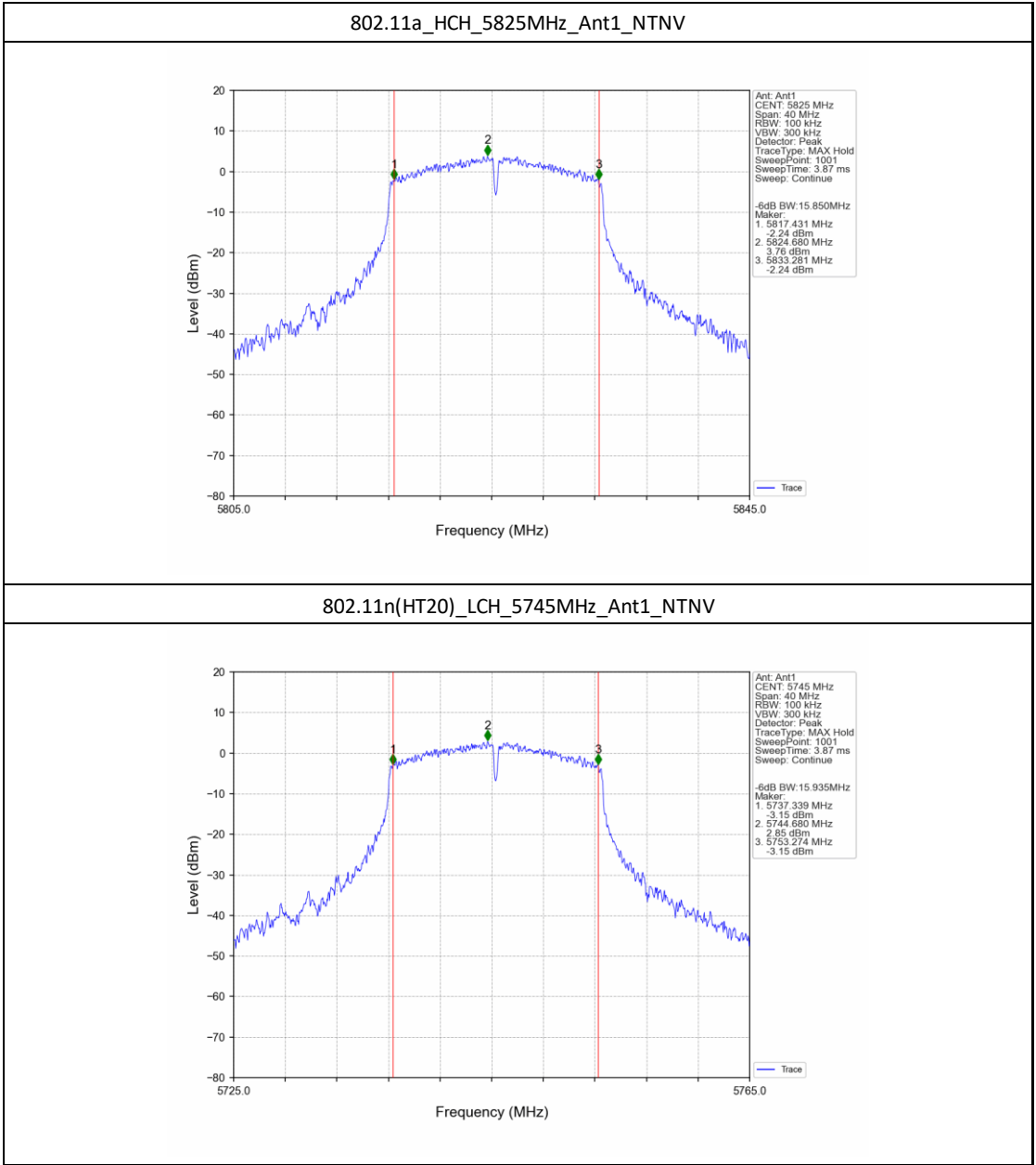


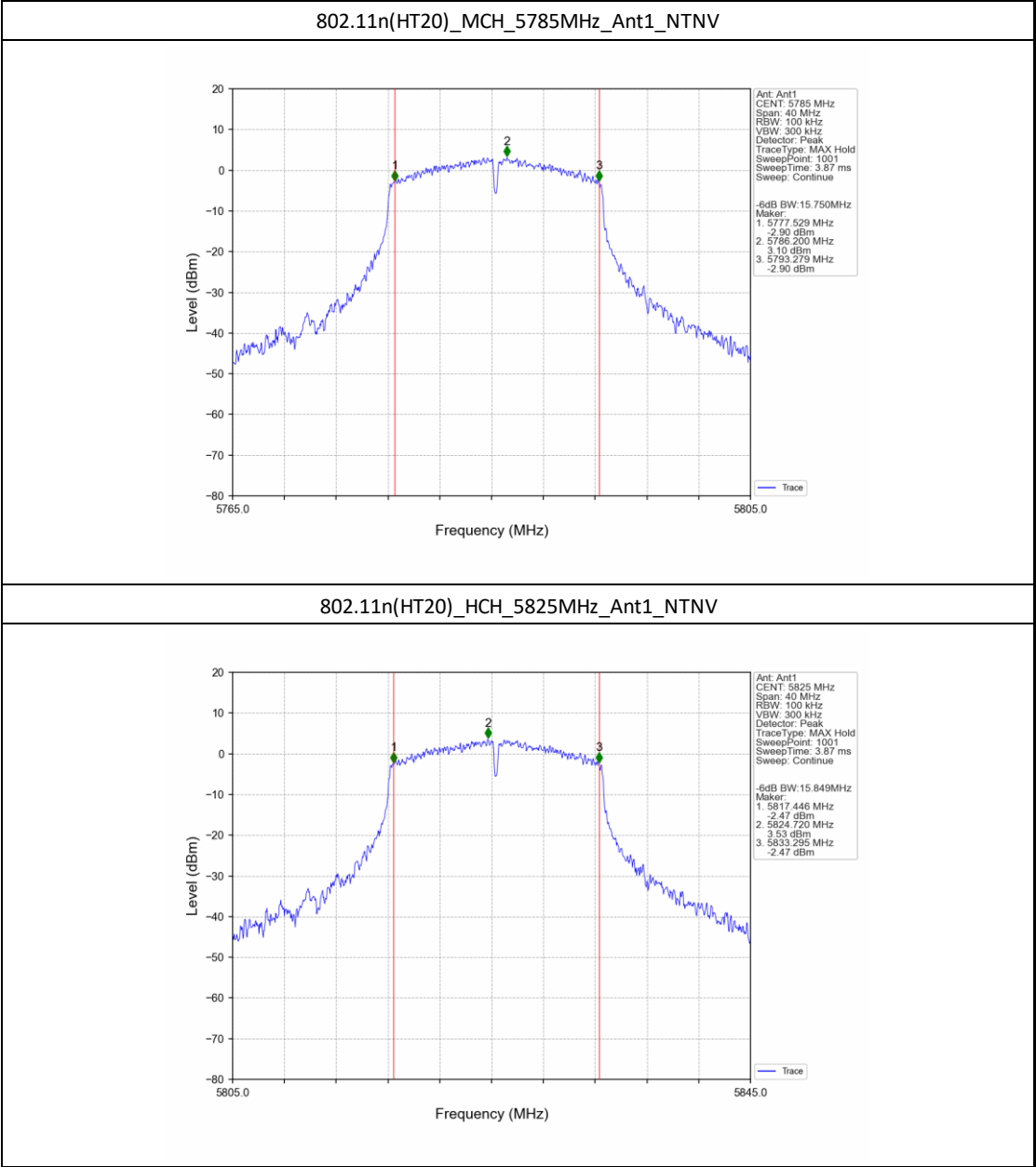




2.2.2 6dB BW







3. Maximum Conducted Output Power

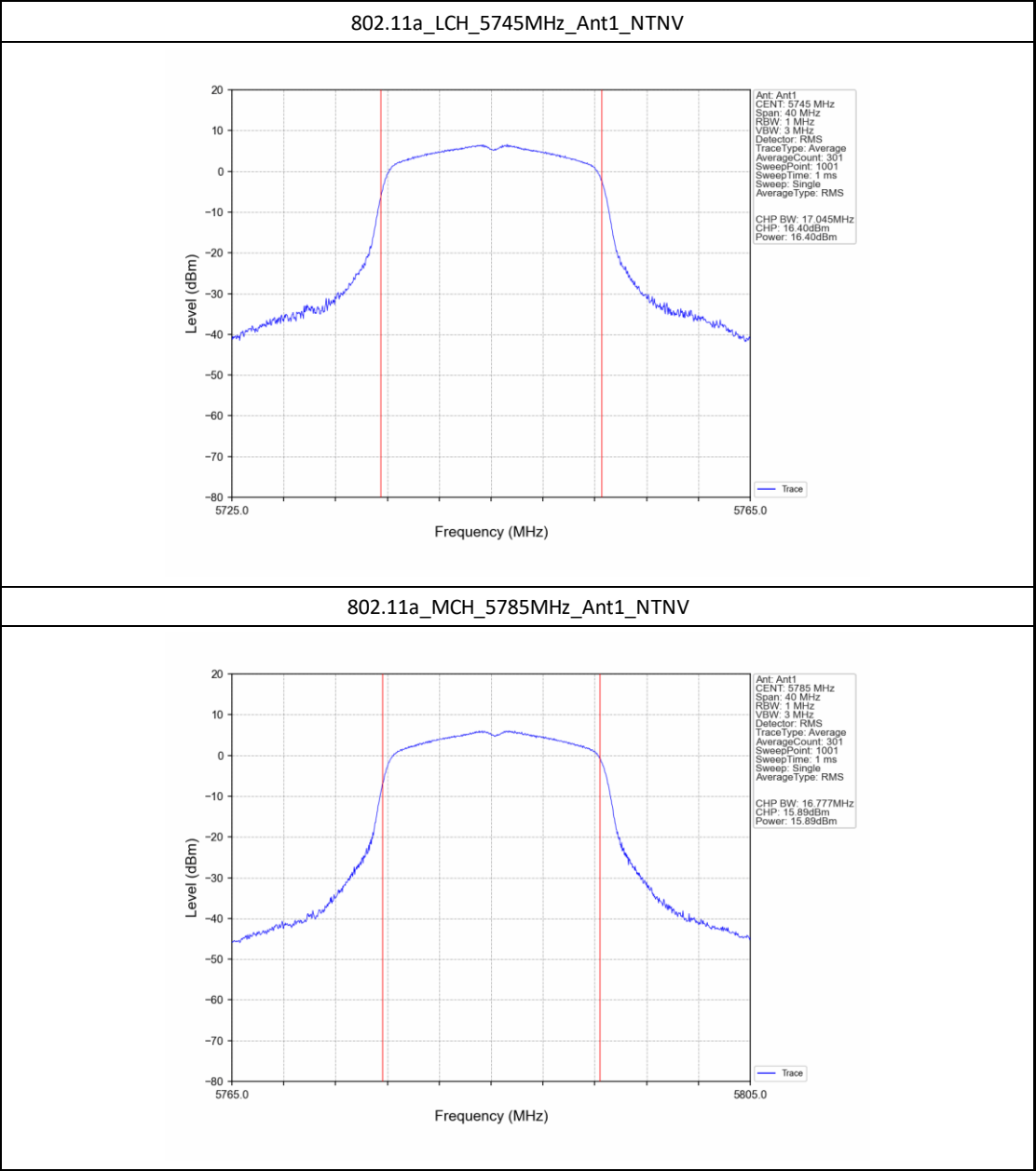
3.1 Test Result

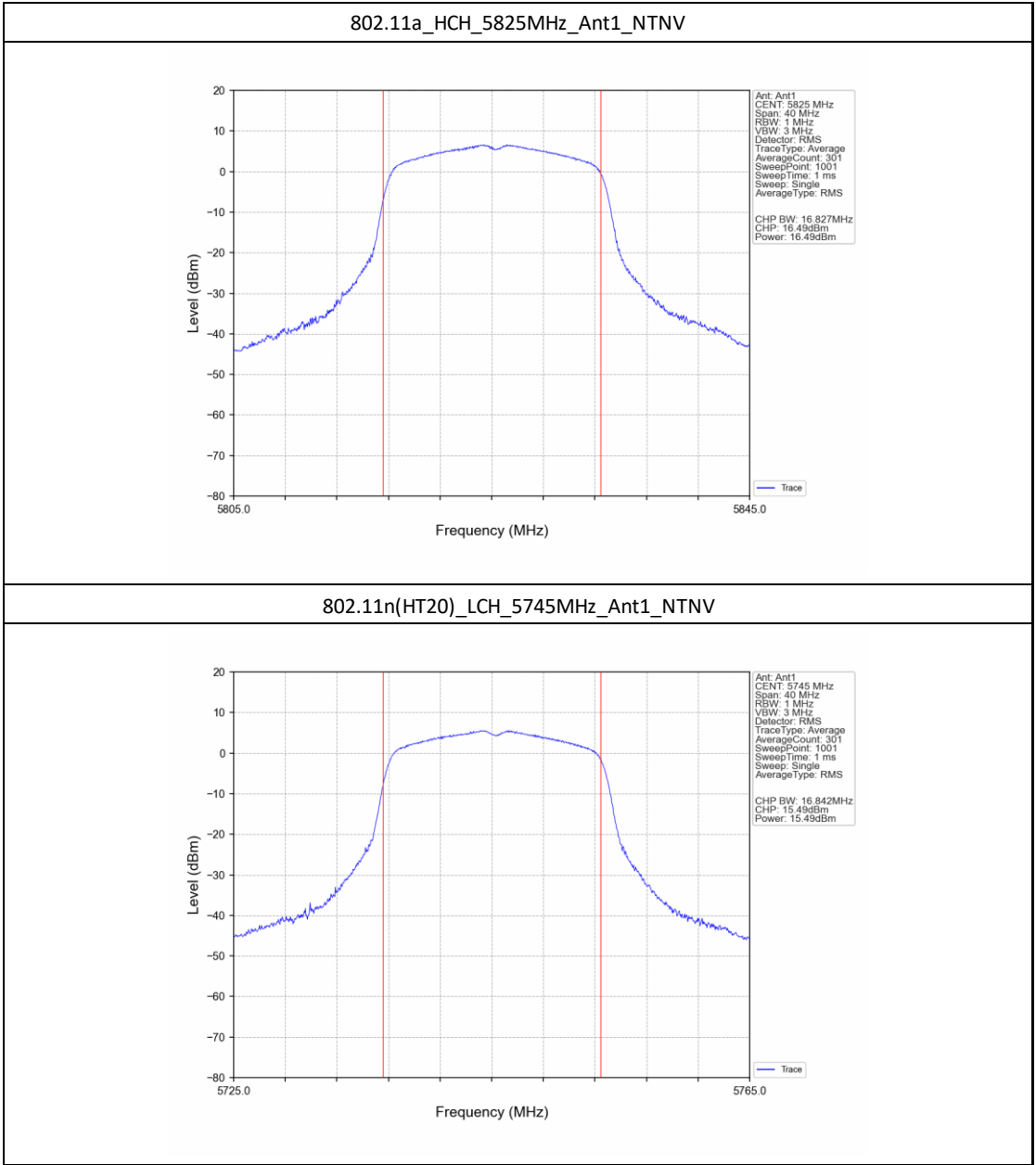
3.1.1 Power

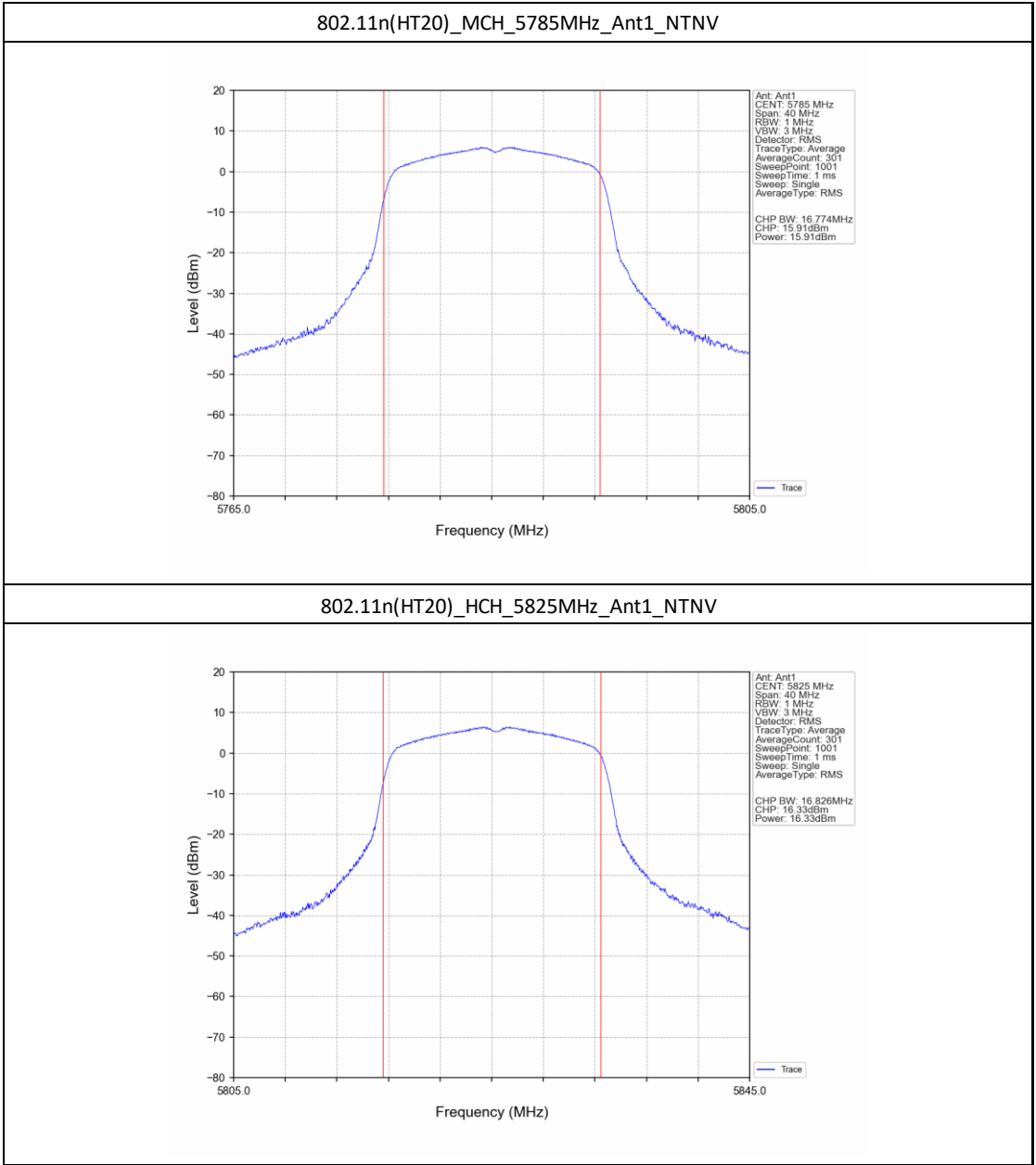
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	16.40	<=30	Pass
		5785	15.89	<=30	Pass
		5825	16.49	<=30	Pass
802.11n (HT20)	SISO	5745	15.49	<=30	Pass
		5785	15.91	<=30	Pass
		5825	16.33	<=30	Pass
Note1: Antenna Gain: Ant1: 2.00dBi;					

3.2 Test Graph

3.2.1 Power







4. Maximum Power Spectral Density

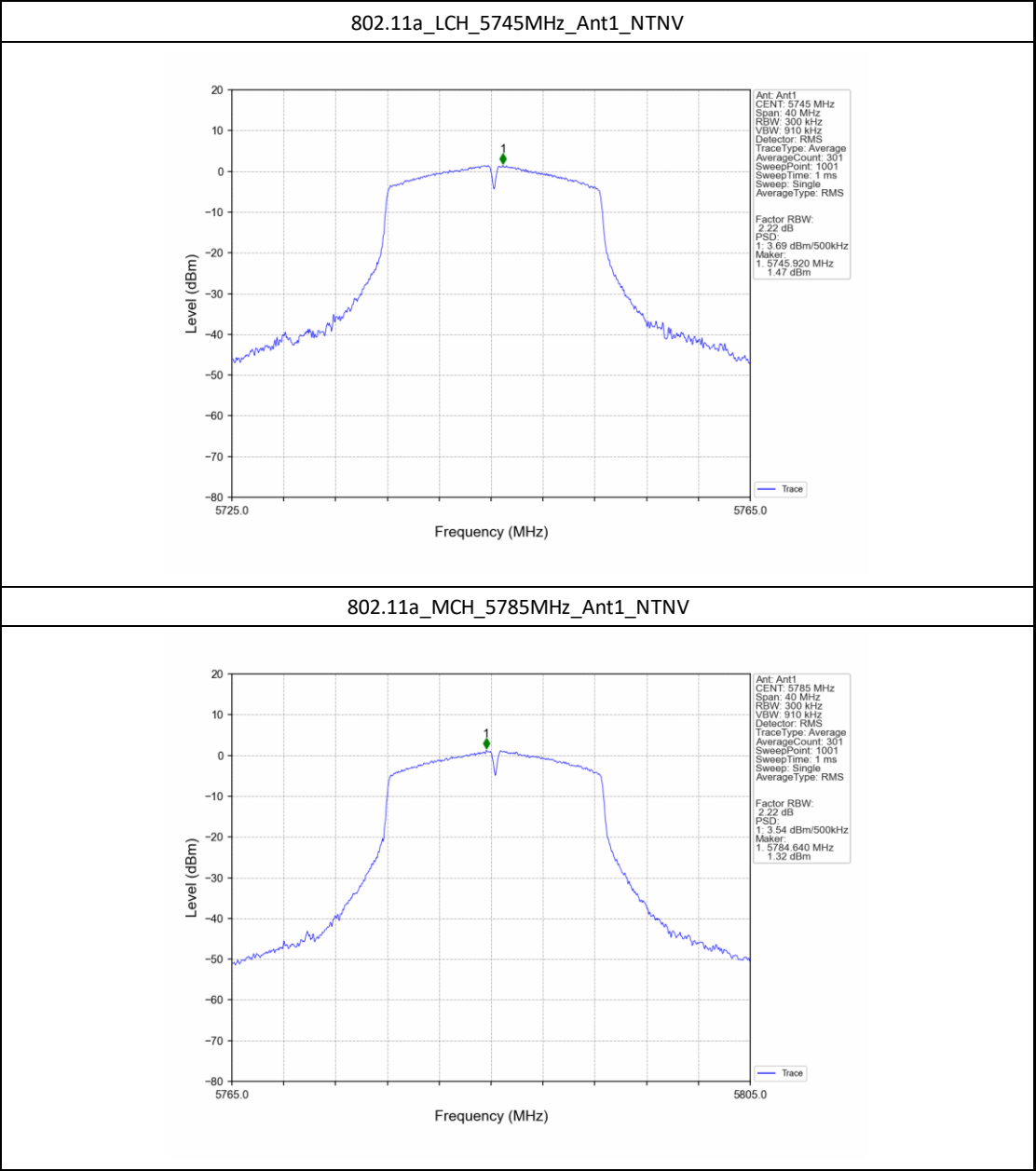
4.1 Test Result

4.1.1 PSD-Band3

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	3.69	<=30	Pass
		5785	3.54	<=30	Pass
		5825	4.12	<=30	Pass
802.11n (HT20)	SISO	5745	3.00	<=30	Pass
		5785	3.45	<=30	Pass
		5825	3.80	<=30	Pass
Note1: Antenna Gain: Ant1: 2.00dBi;					

4.2 Test Graph

4.2.1 PSD-Band3



802.11a_MCH_5785MHz_Ant1_NTNV

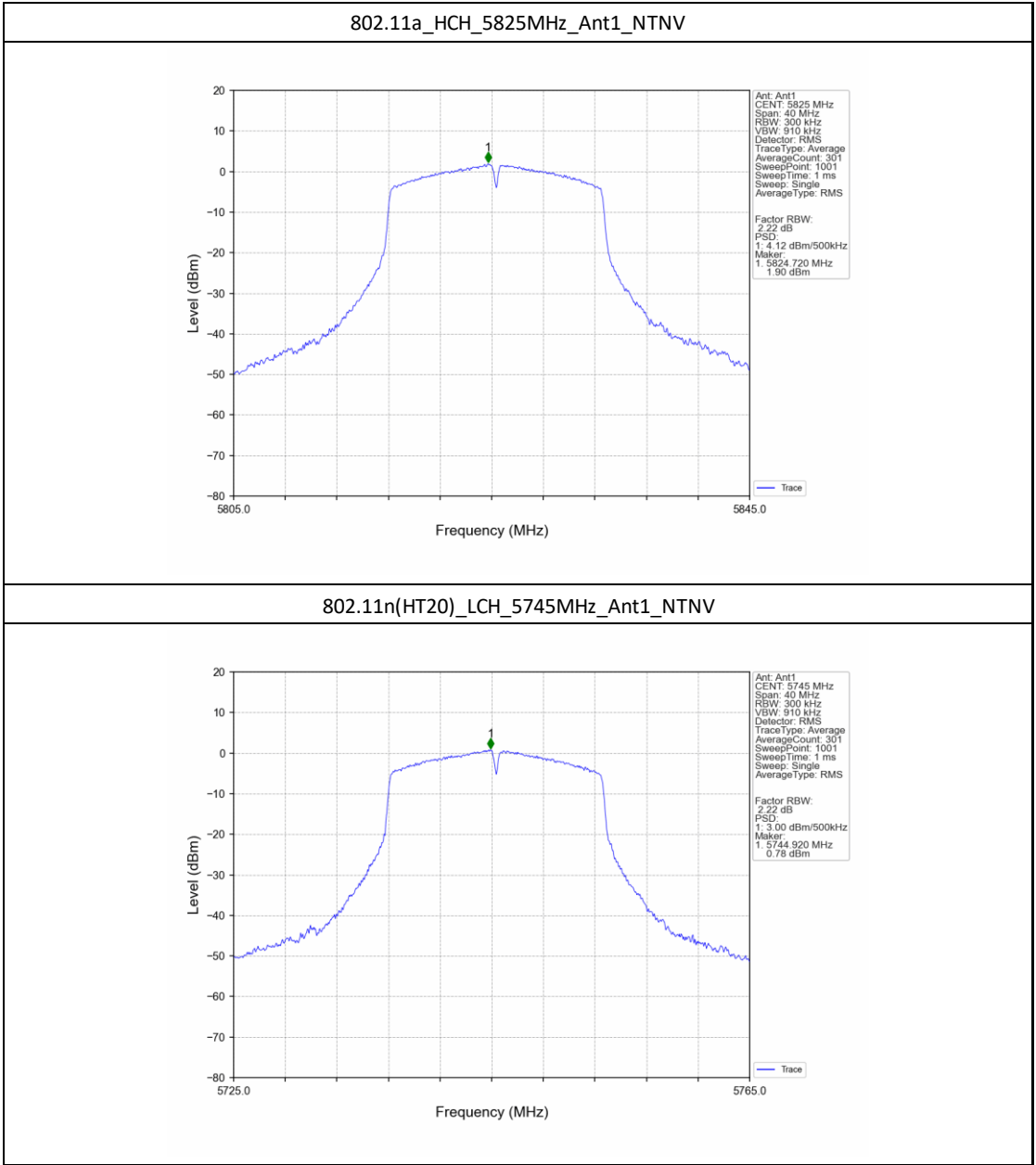
This spectrum plot shows the power spectral density (PSD) for the 802.11a_MCH_5785MHz_Ant1_NTNV configuration. The x-axis represents Frequency in MHz, ranging from 5765.0 to 5805.0. The y-axis represents Level in dBm, ranging from -80 to 20. A prominent signal peak is visible at 5784.640 MHz, marked with a green dot and labeled '1'. The signal has a bandwidth of approximately 20 MHz. The plot includes a legend for 'Trace' and a detailed parameter table on the right.

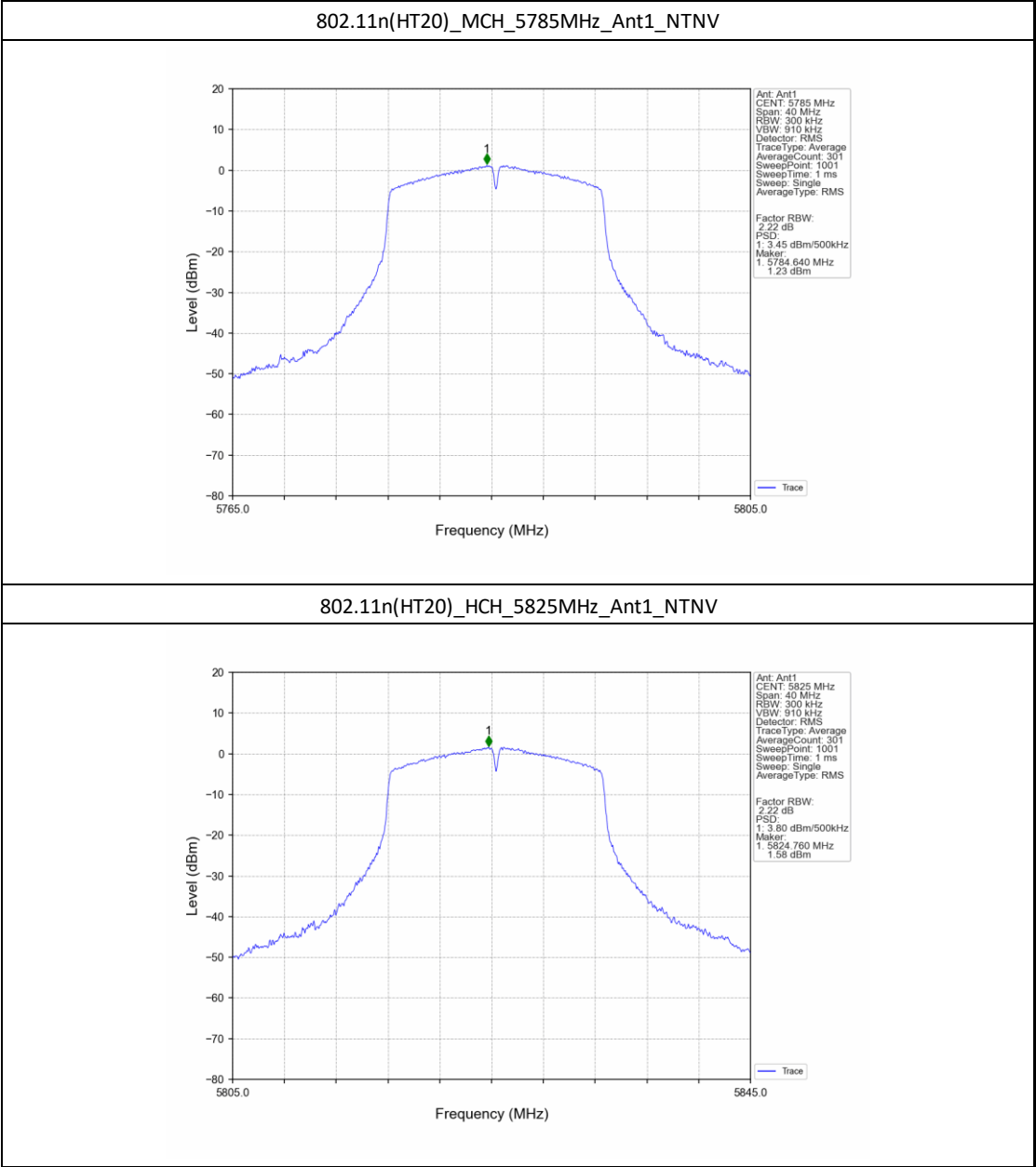
Ant: Ant1
CENT: 5785 MHz
Span: 40 MHz
RBW: 300 kHz
VBW: 910 kHz
Detector: RMS
TraceType: Average
AverageCount: 301
SweepPoint: 1001
SweepTime: 1 ms
Sweep: Single
AverageType: RMS
Factor RBW: 2.22 dB
PSD: 1.3.54 dBm/500kHz
Marker: 1. 5784.640 MHz
1.32 dBm

Level (dBm)

Frequency (MHz)

Trace





5. Frequency Stability

5.1 Test Result

5.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5745	20	102	5745.200	5725 to 5850	Pass
				120	5745.240	5725 to 5850	Pass
				138	5745.260	5725 to 5850	Pass
			-30	120	5745.280	5725 to 5850	Pass
			-20	120	5745.280	5725 to 5850	Pass
			-10	120	5745.280	5725 to 5850	Pass
			0	120	5745.300	5725 to 5850	Pass
			10	120	5745.280	5725 to 5850	Pass
			30	120	5745.300	5725 to 5850	Pass
			40	120	5745.300	5725 to 5850	Pass
			50	120	5745.320	5725 to 5850	Pass
		5785	20	102	5785.320	5725 to 5850	Pass
				120	5785.340	5725 to 5850	Pass
				138	5785.320	5725 to 5850	Pass
			-30	120	5785.320	5725 to 5850	Pass
			-20	120	5785.320	5725 to 5850	Pass
			-10	120	5785.320	5725 to 5850	Pass
			0	120	5785.340	5725 to 5850	Pass
			10	120	5785.320	5725 to 5850	Pass
			30	120	5785.320	5725 to 5850	Pass
			40	120	5785.320	5725 to 5850	Pass
			50	120	5785.320	5725 to 5850	Pass
		5825	20	102	5825.340	5725 to 5850	Pass
				120	5825.340	5725 to 5850	Pass
				138	5825.360	5725 to 5850	Pass
			-30	120	5825.340	5725 to 5850	Pass
			-20	120	5825.360	5725 to 5850	Pass
			-10	120	5825.360	5725 to 5850	Pass
			0	120	5825.340	5725 to 5850	Pass
			10	120	5825.360	5725 to 5850	Pass
			30	120	5825.340	5725 to 5850	Pass
			40	120	5825.340	5725 to 5850	Pass
			50	120	5825.360	5725 to 5850	Pass
802.11n (HT20)	SISO	5745	20	102	5745.320	5725 to 5850	Pass
				120	5745.320	5725 to 5850	Pass
				138	5745.320	5725 to 5850	Pass
			-30	120	5745.320	5725 to 5850	Pass

			-20	120	5745.340	5725 to 5850	Pass
			-10	120	5745.320	5725 to 5850	Pass
			0	120	5745.340	5725 to 5850	Pass
			10	120	5745.320	5725 to 5850	Pass
			30	120	5745.340	5725 to 5850	Pass
			40	120	5745.320	5725 to 5850	Pass
			50	120	5745.320	5725 to 5850	Pass
		5785	20	102	5785.340	5725 to 5850	Pass
				120	5785.340	5725 to 5850	Pass
				138	5785.340	5725 to 5850	Pass
			-30	120	5785.340	5725 to 5850	Pass
			-20	120	5785.340	5725 to 5850	Pass
			-10	120	5785.360	5725 to 5850	Pass
			0	120	5785.340	5725 to 5850	Pass
			10	120	5785.340	5725 to 5850	Pass
			30	120	5785.360	5725 to 5850	Pass
			40	120	5785.360	5725 to 5850	Pass
			50	120	5785.340	5725 to 5850	Pass
		5825	20	102	5825.360	5725 to 5850	Pass
				120	5825.360	5725 to 5850	Pass
				138	5825.360	5725 to 5850	Pass
			-30	120	5825.360	5725 to 5850	Pass
			-20	120	5825.360	5725 to 5850	Pass
			-10	120	5825.360	5725 to 5850	Pass
			0	120	5825.360	5725 to 5850	Pass
			10	120	5825.360	5725 to 5850	Pass
			30	120	5825.340	5725 to 5850	Pass
			40	120	5825.360	5725 to 5850	Pass
			50	120	5825.360	5725 to 5850	Pass